

APPENDIX A

```

//COPYRIGHT 2000 CISCO SYSTEMS, INC.,
5 //TCC BLSR STATE MACHINE PSEUDO-CODE

States:
    UNPROVISIONED_STATE,
    TOPOLOGY_RDY_STATE,
10    PROVISIONING_RDY_STATE,
    STANDBY_STATE,
    IDLE_STATE,
    WAIT_RM_ACK_STATE,
    WAIT_BLSR_TBL_RSP_STATE,
15    WAIT_NODE_ID_ACK_STATE,
    WAIT_ENABLE_SWITCH_RSP_STATE

Events:
    TOPOLOGY_CHANGE,
20    PROVISIONING,
    LOCAL_XC_CHANGE,
    LOCAL_NODE_ID_CHANGE,
    LOCAL_RING_ID_CHANGE,
    REMOTE_XC_CHANGE,
25    REMOTE_NODE_ID_CHANGE,
    REMOTE_RM_CHANGE,
    RDY_TO_SWITCH_REQ,
    BLSR_TBL_REQ,
    BLSR_TBL_RSP,
30    NODE_ID_ACK,
    RM_ACK,
    RDY_TO_SWITCH_ACK,
    ENABLE_SWITCH,
    XC_ENABLE_SWITCH_REQ,
35    USER_ACCEPT_RM,

Initial state UNPROVISIONED_STATE;

40 ////////////////////////////////////////////////////
// UNPROVISIONED_STATE
//////////////////////////////////////////////////
for(UNPROVISIONED_STATE;
    TOPOLOGY_CHANGE)
{
45    //topo change given by OSPF. Simply go to next state
    NEXT_STATE(TOPOLOGY_RDY_STATE);
}

for(UNPROVISIONED_STATE;
50    PROVISIONING)
{
    initialize local Payload table;
    initialize squelch table;
    initialize local add/drop tables;
55    if this TCC is not active {
        blsrActive = FALSE;
        readyToSwitch = FALSE;
        NEXT_STATE(STANDBY_STATE);
60    }
}

```

```

    if number of nodes in ring > 1 {
        delete all communication session for ring id ringId;
        send a request for other nodes' blsr tables;
5      NEXT_STATE(WAIT_BLSR_TBL_RSP_STATE);
    }

    NEXT_STATE(PROVISIONING_RDY_STATE);

10  }

    for(UNPROVISIONED_STATE;
        REMOTE_XC_CHANGE, REMOTE_NODE_ID_CHANGE, REMOTE_RM_CHANGE,
        RDY_TO_SWITCH_REQ, XC_ENABLE_SWITCH_REQ, BLSR_TBL_REQ)
15  {
        //Ignore
        SAME_STATE;
    }

    for(UNPROVISIONED_STATE;
        LOCAL_XC_CHANGE, LOCAL_NODE_ID_CHANGE, LOCAL_RING_ID_CHANGE,
        BLSR_TBL_RSP, NODE_ID_ACK, RM_ACK, RDY_TO_SWITCH_ACK,
        ENABLE_SWITCH, USER_ACCEPT_RM)
20  {
        STATE_ERROR;
    }

    //////////////////////////////////////
    // TOPOLOGY_RDY_STATE
    //////////////////////////////////////
30  for(TOPOLOGY_RDY_STATE;
        TOPOLOGY_CHANGE)
    {
        //topo change given by OSPF. Simply go to next state
35  SAME_STATE;
    }

    for(TOPOLOGY_RDY_STATE;
        PROVISIONING)
40  {
        initialize local payload table;
        initialize squelch table;
        initialize local add/drop tables;

45  if TCC is not active {
        blsrActive = FALSE;
        readyToSwitch = FALSE;
        NEXT_STATE(STANDBY_STATE);
    }

50  // To force update of all tables once topo change is performed
    // set localXcChangeQ to TRUE;
    // We cannot guarantee that topo update will result in new
    // Ring map, so we need to force table generation.
55  localXcChangeQ = TRUE;

    process OSPF changes;
    if OSPF changes lead to new ring map {
60  NEXT_STATE(IDLE_STATE);
    }

```

```

    NEXT_STATE(PROVISIONING_RDY_STATE);
}

for(TOPOLOGY_RDY_STATE;
5   REMOTE_XC_CHANGE, REMOTE_NODE_ID_CHANGE, REMOTE_RM_CHANGE,
   RDY_TO_SWITCH_REQ, XC_ENABLE_SWITCH_REQ,  BLSR_TBL_REQ)
{
    //Ignore
    SAME_STATE;
10 }

for(TOPOLOGY_RDY_STATE;
    LOCAL_XC_CHANGE, LOCAL_NODE_ID_CHANGE, LOCAL_RING_ID_CHANGE,
    BLSR_TBL_RSP,  NODE_ID_ACK, RM_ACK, RDY_TO_SWITCH_ACK,
15   ENABLE_SWITCH, USER_ACCEPT_RM)
{
    STATE_ERROR;
}

20  //////////////////////////////////////
    // PROVISIONING_RDY_STATE
    //////////////////////////////////////
for(PROVISIONING_RDY_STATE;
    TOPOLOGY_CHANGE)
25 {
    process OPSF change;
    if OSPF changes lead to new ring map {
        NEXT_STATE(IDLE_STATE);
    }
30   SAME_STATE;
}

for(PROVISIONING_RDY_STATE;
    PROVISIONING)
35 {
    if TCC is not active
    {
        blsrActive = FALSE;
        readyToSwitch = FALSE;
40     terminate all communication sessions with other nodes;
        NEXT_STATE(STANDBY_STATE);
    }

    SAME_STATE;
45 }

for(PROVISIONING_RDY_STATE;
    LOCAL_XC_CHANGE)
{
50   initialize local payload table;
    initialize squelch table;
    initialize add/drop tables;

    SAME_STATE;
55 }

for(PROVISIONING_RDY_STATE;
    LOCAL_NODE_ID_CHANGE)
{
60   SAME_STATE;
}

```

```

for (PROVISIONING_RDY_STATE;
    LOCAL_RING_ID_CHANGE)
5  {
    SAME_STATE;
}

for (PROVISIONING_RDY_STATE;
    REMOTE_RM_CHANGE)
10 {
    process ring map update from other node;
    send acknowledgment to node;
    terminate all communication sessions with other nodes;
    Send a blsr table request to all nodes;
15  NEXT_STATE(WAIT_BLSR_TBL_RSP_STATE);
}

for (PROVISIONING_RDY_STATE;
    BLSR_TBL_REQ)
20 {
    process the blsr table request;
    send a blsr table response;
    SAME_STATE;
}
25

for (PROVISIONING_RDY_STATE;
    REMOTE_XC_CHANGE, REMOTE_NODE_ID_CHANGE, RDY_TO_SWITCH_REQ,
    XC_ENABLE_SWITCH_REQ)
30 {
    // Ignore
    SAME_STATE;
}

for (PROVISIONING_RDY_STATE;
    BLSR_TBL_RSP, NODE_ID_ACK,
    RM_ACK, RDY_TO_SWITCH_ACK, ENABLE_SWITCH,
    USER_ACCEPT_RM)
35 {
    STATE_ERROR;
}
40

////////////////////////////////////
// STANDBY_STATE
////////////////////////////////////
45 for (STANDBY_STATE;
    TOPOLOGY_CHANGE)
{
    //topo change stored before event. Simply go to next state
    SAME_STATE;
50 }

for (STANDBY_STATE;
    PROVISIONING)
{
55  //misc.
    if TCC is active {
        blsrActive = TRUE;

        initialize the local payload table;
60  initialize the squelch table;
        initialize the add/drop tables;

```

```

    if number of nodes in ring > 1 {
        terminate all communication sessions;
        send a request for blsr tables to all nodes in ring;
5      NEXT_STATE(WAIT_BLSR_TBL_RSP_STATE);
    }

    NEXT_STATE(PROVISIONING_RDY_STATE);
10  }
    else {
        SAME_STATE;
    }
}

15  for(STANDBY_STATE;
      XC_ENABLE_SWITCH_REQ)
    {
        //Ignore
        SAME_STATE;
20  }

    for(STANDBY_STATE;
        LOCAL_XC_CHANGE, LOCAL_NODE_ID_CHANGE, LOCAL_RING_ID_CHANGE,
        REMOTE_XC_CHANGE, REMOTE_NODE_ID_CHANGE, REMOTE_RM_CHANGE,
25  RDY_TO_SWITCH_REQ, BLSR_TBL_REQ, BLSR_TBL_RSP,
        NODE_ID_ACK, RM_ACK, RDY_TO_SWITCH_ACK,
        ENABLE_SWITCH, USER_ACCEPT_RM)
    {
        STATE_ERROR;
30  }

    //////////////////////////////////////
    // IDLE_STATE,
    //////////////////////////////////////
35  for(IDLE_STATE;
        TOPOLOGY_CHANGE)
    {
        process OSPF changes;
        if OSPF changes lead to new ring map {
40      NEXT_STATE(IDLE_STATE);
        }
        SAME_STATE;
    }

45  for(IDLE_STATE;
        PROVISIONING)
    {
        if TCC is not active
        {
50      blsrActive = FALSE;
          readyToSwitch = FALSE;
          terminate all communication sessions;
          NEXT_STATE(STANDBY_STATE);
        }

55      SAME_STATE;
    }

60  for(IDLE_STATE;
        LOCAL_XC_CHANGE)
    {

```

```

        initialize local payload table;
        initialize squelch table;
        initialize add/drop tables;

5      if number of nodes in ring > 1 {
            send to all nodes in ring that local cross-connect table was
modified;
            send a request for blsr tables to all nodes in ring;
10      NEXT_STATE(WAIT_BLSR_TBL_RSP_STATE);
        }

        SAME_STATE;
    }

15  for(IDLE_STATE;
        LOCAL_NODE_ID_CHANGE)
    {
        process new node id;
        if number of nodes in ring > 1 {
20      send to all nodes in ring the new node id;
            NEXT_STATE(WAIT_NODE_ID_ACK_STATE);
        }
        SAME_STATE;
    }

25  for(IDLE_STATE;
        LOCAL_RING_ID_CHANGE)
    {
        terminate all communication sessions;
        process latest OSPF changes;
30      if new node id leads to a new ring map {
            NEXT_STATE(IDLE_STATE);
        }
        SAME_STATE;
35  }

    for(IDLE_STATE;
        REMOTE_XC_CHANGE)
    {
40      terminate all communication sessions;
        ask for blsr tables to all nodes in ring;
        NEXT_STATE(WAIT_BLSR_TBL_RSP_STATE);
    }

45  for(IDLE_STATE;
        REMOTE_NODE_ID_CHANGE)
    {
        process new node id;
        send acknowledgement to node;
50      SAME_STATE;
    }

    for(IDLE_STATE;
        REMOTE_RM_CHANGE)
55  {
        process ring map change;
        send acknowledgement to node;
        terminate all communication sessions;
        send request for blsr tables to all nodes;
60      NEXT_STATE(WAIT_BLSR_TBL_RSP_STATE);
    }

```

```

for(IDLE_STATE;
  RDY_TO_SWITCH_REQ)
{
5   if readyToSwitch {
      send message to querying node that node is ready to switch.
    }
    SAME_STATE;
}
10
for(IDLE_STATE;
  BLSR_TBL_REQ)
{
    process request for blsr tables;
15   send blsr tables to requesting node;
    SAME_STATE;
}

for(IDLE_STATE;
  ENABLE_SWITCH)
20 {
    send enable switch request to all nodes
    NEXT_STATE(WAIT_ENABLE_SWITCH_RSP_STATE);
}

for(IDLE_STATE;
  XC_ENABLE_SWITCH_REQ)
25 {
    if(!enableSwitchSentToXc && readyToSwitch) {
30       send message to XCON that BLSR is ready to switch;
    }
    SAME_STATE;
}

for(IDLE_STATE;
  USER_ACCEPT_RM)
35 {
    if ring Map accepted by user is different than previous ring map
    {
40       send accepted ring map to all nodes in ring.
        NEXT_STATE(WAIT_RM_ACK_STATE);
    }
    SAME_STATE;
}
45
for(IDLE_STATE;
  BLSR_TBL_RSP,  NODE_ID_ACK,
  RM_ACK, RDY_TO_SWITCH_ACK)
{
50   STATE_ERROR;
}

////////////////////////////////////
// WAIT RM ACK STATE
////////////////////////////////////
55 for(WAIT_RM_ACK_STATE;
    TOPOLOGY_CHANGE)
{
    // Queue event to make sure that we resume after topo change.
60   process OSPF changes;
    if OSPF changes lead to new ring map {

```

```

        acceptRmQ = TRUE;
        NEXT_STATE(IDLE_STATE);
    }
    SAME_STATE;
5  }

    for(WAIT_RM_ACK_STATE;
        PROVISIONING)
    {
10     if TCC is not active
        {
            blsrActive = FALSE;
            readyToSwitch = FALSE;
            terminate all communication sessions;
15     NEXT_STATE(STANDBY_STATE);
        }

        SAME_STATE;
20     }

    for(WAIT_RM_ACK_STATE;
        LOCAL_XC_CHANGE)
    {
25     localXcChangeQ = TRUE;
        SAME_STATE;
    }

    for(WAIT_RM_ACK_STATE;
        LOCAL_NODE_ID_CHANGE)
    {
30     process change of node id;
        if number of nodes in ring > 1 {
            acceptRmQ = TRUE;
            send new node id to all nodes in ring;
            NEXT_STATE(WAIT_NODE_ID_ACK_STATE);
35     }
        SAME_STATE;
    }

    for(WAIT_RM_ACK_STATE;
        LOCAL_RING_ID_CHANGE)
40     {
        terminate all communication sessions;
        process latest OSPF changes;
        if new node id leads new ring map {
45     NEXT_STATE(IDLE_STATE);
        }
        SAME_STATE;
    }

50     for(WAIT_RM_ACK_STATE;
        REMOTE_XC_CHANGE)
    {
        remoteXcChangeQ = TRUE;
        SAME_STATE;
55     }

    for(WAIT_RM_ACK_STATE;
        REMOTE_NODE_ID_CHANGE)
60     {
        process new node id;
        send acknowledgement to node;
    }

```



```

    SAME_STATE;
}

5  for(WAIT_RM_ACK_STATE;
    REMOTE_RM_CHANGE)
    {
        process ring map update;
        send acknowledgement to node;
        delete all communication sessions;
10  send blsr tables to all nodes;
        NEXT_STATE(WAIT_BLSR_TBL_RSP_STATE);
    }

15  for(WAIT_RM_ACK_STATE;
    BLSR_TBL_REQ)
    {
        process blsr table request;
        send blsr tables to node;
        SAME_STATE;
20  }

    for(WAIT_RM_ACK_STATE;
        RM_ACK)
    {
25  if processing of ring map acknowledgement is successful
        terminate all communication sessions;
        send blsr table request to all nodes;
        NEXT_STATE(WAIT_BLSR_TBL_RSP_STATE);
    }
30  SAME_STATE;
    }

    for(WAIT_RM_ACK_STATE;
        USER_ACCEPT_RM)
35  {
        STATE_ERROR;
    }

    for(WAIT_RM_ACK_STATE;
        RDY_TO_SWITCH_REQ)
40  {
        // Ignore
        SAME_STATE;
    }
45  }

    for(WAIT_RM_ACK_STATE;
        XC_ENABLE_SWITCH_REQ)
    {
        xcEnableSwQ = TRUE;
50  SAME_STATE;
    }

    for(WAIT_RM_ACK_STATE;
        BLSR_TBL_RSP,  NODE_ID_ACK, RDY_TO_SWITCH_ACK,
55  ENABLE_SWITCH)
    {
        STATE_ERROR;
    }

60  //////////////////////////////////////
    // WAIT_BLSR_TBL_RSP_STATE

```

```

////////////////////////////////////
for(WAIT_BLSR_TBL_RSP_STATE;
  TOPOLOGY_CHANGE)
{
5  // Queue event to make sure that we resume after RM update.
  // Queue worse case event.
  process OSPF change
  if OSPF changes lead to new ring map {
    localXcChangeQ = TRUE;
10  NEXT_STATE(IDLE_STATE);
  }
  SAME_STATE;
}

15 for(WAIT_BLSR_TBL_RSP_STATE;
  PROVISIONING)
{
  if TCC is not active
  {
20  blsrActive = FALSE;
    readyToSwitch = FALSE;
    terminate all communication sessions;
    NEXT_STATE(STANDBY_STATE);
  }
25  SAME_STATE;
}

for(WAIT_BLSR_TBL_RSP_STATE;
30  LOCAL_XC_CHANGE)
{
  initialize local payload table;
  initialize squelch table;
  initialize add/drop tables;
35  if number of nodes in ring > 1 {
    send cross-connect table change notification to all nodes in
    ring;
    send blsr table request to all nodes in ring;
40  }

  SAME_STATE;
}

45 for(WAIT_BLSR_TBL_RSP_STATE;
  LOCAL_NODE_ID_CHANGE)
{
  process node id change;
  if number of nodes in ring > 1 {
50  localXcChangeQ = TRUE;
    send new node id to all nodes in ring;
    NEXT_STATE(WAIT_NODE_ID_ACK_STATE);
  }
  SAME_STATE;
55 }

for(WAIT_BLSR_TBL_RSP_STATE;
  LOCAL_RING_ID_CHANGE)
{
60  terminate all communication sessions;
  process latest OSPF changes;

```

```

    if new ring Id lead to new ring map {
        NEXT_STATE(IDLE_STATE);
    }
    SAME_STATE;
5  }

    for(WAIT_BLSR_TBL_RSP_STATE;
        REMOTE_XC_CHANGE)
    {
10  {
        terminate all communication sessions;
        send blsr table request to all nodes in ring;
        SAME_STATE;
    }

15  for(WAIT_BLSR_TBL_RSP_STATE;
        REMOTE_NODE_ID_CHANGE)
    {
        process node id change;
        send acknowledgement to node;
20  SAME_STATE;
    }

    for(WAIT_BLSR_TBL_RSP_STATE;
        REMOTE_RM_CHANGE)
25  {
        process ring map update;
        send ring map acknowledgement to node;
        terminate all communication sessions;
        send blsr table request to all nodes in ring;
30  SAME_STATE;
    }

    for(WAIT_BLSR_TBL_RSP_STATE;
        BLSR_TBL_REQ)
35  {
        process blsr table request;
        send blsr table response to requesting node;
        SAME_STATE;
    }
40

    for(WAIT_BLSR_TBL_RSP_STATE;
        BLSR_TBL_RSP)
    {
        process event;
45  if all responses have been received {
            if(!enableSwitchSentToXc) {
                readyToSwitch = TRUE;
                query all nodes in ring to know if they are ready to switch;
                NEXT_STATE(WAIT_ENABLE_SWITCH_RSP_STATE);
50            }
            NEXT_STATE(IDLE_STATE);
        }
        else {
            SAME_STATE;
55        }
    }

    for(WAIT_BLSR_TBL_RSP_STATE;
        USER_ACCEPT_RM)
60  {

```

```

    if ring map accepted by user is different from previous ring map
    {
        send a ring map update request to all nodes;
        NEXT_STATE(WAIT_RM_ACK_STATE);
5    }
    SAME_STATE;
}

10 for(WAIT_BLSR_TBL_RSP_STATE;
    RDY_TO_SWITCH_REQ)
    {
        // Ignore
        SAME_STATE;
    }

15 for(WAIT_BLSR_TBL_RSP_STATE;
    XC_ENABLE_SWITCH_REQ)
    {
        xcEnableSwQ = TRUE;
20    SAME_STATE;
    }

    for(WAIT_BLSR_TBL_RSP_STATE;
        NODE_ID_ACK, RM_ACK,
25    RDY_TO_SWITCH_ACK, ENABLE_SWITCH)
        {
            STATE_ERROR;
        }

30    //////////////////////////////////////
    // WAIT NODE_ID_ACK_STATE
    //////////////////////////////////////
    for(WAIT_NODE_ID_ACK_STATE;
        TOPOLOGY_CHANGE)
35    {
        // Queue event to make sure that we resume after topo change.
        // Queue worse case event.
        nodeIdChangeQ = TRUE;
        process OSPF changes;
40    }

    for(WAIT_NODE_ID_ACK_STATE;
        PROVISIONING)
    {
45        if TCC is not active
            {
                blsrActive = FALSE;
                readyToSwitch = FALSE;
                terminate all communication sessions;
50                NEXT_STATE(STANDBY_STATE);
            }

        SAME_STATE;
    }

55 for(WAIT_NODE_ID_ACK_STATE;
    LOCAL_XC_CHANGE)
    {
        localXcChangeQ = TRUE;
60    SAME_STATE;
    }

```

```

for(WAIT_NODE_ID_ACK_STATE;
  LOCAL_NODE_ID_CHANGE)
{
  process local node id change;
5   if number of nodes in ring > 1 {
    send node id update to all nodes in ring;
    NEXT_STATE(WAIT_NODE_ID_ACK_STATE);
  }
  SAME_STATE;
10  }

for(WAIT_NODE_ID_ACK_STATE;
  LOCAL_RING_ID_CHANGE)
{
15  terminate all communication sessions;
    process latest OSPF changes;
    if new ring Id leads to new ring map {
      NEXT_STATE(IDLE_STATE);
    }
20  SAME_STATE;
  }

for(WAIT_NODE_ID_ACK_STATE;
  REMOTE_XC_CHANGE)
25  {
    remoteXcChangeQ = TRUE;
    SAME_STATE;
  }

for(WAIT_NODE_ID_ACK_STATE;
  REMOTE_NODE_ID_CHANGE)
30  {
    process node id update;
    send acknowledgement to node;
    SAME_STATE;
35  }

for(WAIT_NODE_ID_ACK_STATE;
  REMOTE_RM_CHANGE)
{
40  process ring map update;
    send ring map acknowledgement;
    send blsr table request to all nodes;
    NEXT_STATE(WAIT_BLSR_TBL_RSP_STATE);
  }
45

for(WAIT_NODE_ID_ACK_STATE;
  BLSR_TBL_REQ)
{
  process blsr table request;
50  send blsr table response;
    SAME_STATE;
  }

for(WAIT_NODE_ID_ACK_STATE;
  NODE_ID_ACK)
55  {
    process node id ack;
    if all ack received {
      NEXT_STATE(IDLE_STATE);
    }
60  }
    SAME_STATE;

```

```

    }

    for(WAIT_NODE_ID_ACK_STATE;
        USER_ACCEPT_RM)
5    {
        process ring map update;
        if accepted ring map is different from old one {
            nodeIdChangeQ = TRUE;
            send accepted ring map to all nodes;
10        NEXT_STATE(WAIT_RM_ACK_STATE);
        }
        SAME_STATE;
    }

15    for(WAIT_NODE_ID_ACK_STATE;
        RDY_TO_SWITCH_REQ)
    {
        // Ignore
        SAME_STATE;
20    }

    for(WAIT_NODE_ID_ACK_STATE;
        XC_ENABLE_SWITCH_REQ)
    {
25        xcEnableSwQ = TRUE;
        SAME_STATE;
    }

    for(WAIT_NODE_ID_ACK_STATE;
        BLSR_TBL_RSP, RM_ACK,
        RDY_TO_SWITCH_ACK, ENABLE_SWITCH)
    {
30        STATE_ERROR;
    }

35    ////////////////////////////////////////////
    // WAIT_ENABLE_SWITCH_RSP_STATE
    ////////////////////////////////////////////
    for(WAIT_ENABLE_SWITCH_RSP_STATE;
40        TOPOLOGY_CHANGE)
    {
        process OSPF change;
        if OSPF changes lead to new ring map {
            enableSwQ = TRUE;
45            NEXT_STATE(IDLE_STATE);
        }
        NEXT_STATE(SAME_STATE);
    }

50    for(WAIT_ENABLE_SWITCH_RSP_STATE;
        PROVISIONING)
    {
        if TCC is not active
        {
55            blsrActive = FALSE;
            readyToSwitch = FALSE;
            terminate all communication sessions
            NEXT_STATE(STANDBY_STATE);
        }

60        SAME_STATE;
    }

```

```

    }

    for(WAIT_ENABLE_SWITCH_RSP_STATE;
        LOCAL_XC_CHANGE)
5      {
        initialize local payload table;
        initialize squelch table;
        initialize add/drop tables;

10      if number of nodes in ring > 1 {
        send cross-connect change to all nodes in ring;
        send blsr table request to all nodes in ring;
        NEXT_STATE(WAIT_BLSR_TBL_RSP_STATE);
      }

15      SAME_STATE;
    }

    for(WAIT_ENABLE_SWITCH_RSP_STATE;
        LOCAL_NODE_ID_CHANGE)
20      {
        process node id change;
        if number of nodes in ring > 1 {
        enableSwQ = TRUE;
25        send node id to all nodes in ring;
        NEXT_STATE(WAIT_NODE_ID_ACK_STATE);
        }
        SAME_STATE;
      }

30      for(WAIT_ENABLE_SWITCH_RSP_STATE;
        LOCAL_RING_ID_CHANGE)
      {
        terminate all communication sessions;
35        process latest OSPF changes;
        if new ring Id lead to new ring map {
        NEXT_STATE(IDLE_STATE);
        }
        SAME_STATE;
40      }

    for(WAIT_ENABLE_SWITCH_RSP_STATE;
        REMOTE_XC_CHANGE)
45      {
        terminate all communication sessions;
        send blsr table request to all nodes;
        NEXT_STATE(WAIT_BLSR_TBL_RSP_STATE);
      }

50      for(WAIT_ENABLE_SWITCH_RSP_STATE;
        REMOTE_NODE_ID_CHANGE)
      {
        process node id change;
        send acknowledgement to node;
55        SAME_STATE;
      }

    for(WAIT_ENABLE_SWITCH_RSP_STATE;
        REMOTE_RM_CHANGE)
60      {
        process ring map change;

```

```

    send acknowledgement to node;
    terminate all communication sessions;
    send blsr table request to all nodes;
    NEXT_STATE(WAIT_BLSR_TBL_RSP_STATE);
5  }

    for(WAIT_ENABLE_SWITCH_RSP_STATE;
        RDY_TO_SWITCH_REQ)
    {
10     if(readyToSwitch) {
        send acknowledgement to node;
    }
    SAME_STATE;
    }

15  for(WAIT_ENABLE_SWITCH_RSP_STATE;
        BLSR_TBL_REQ)
    {
    process blsr table request;
20     send blsr tables to node;
    SAME_STATE;
    }

    for(WAIT_ENABLE_SWITCH_RSP_STATE;
        RDY_TO_SWITCH_ACK)
25  {
    process ready to switch ack;
    if(received ready to switch ack from all nodes) {
        if(!enableSwitchSentToXc && xcReadyToSwitch) {
30             send ready to switch message to XCON;
        }
        NEXT_STATE(IDLE_STATE);
    }
    else {
35         SAME_STATE;
    }
    }

    for(WAIT_ENABLE_SWITCH_RSP_STATE;
        XC_ENABLE_SWITCH_REQ)
40  {
    xcEnableSwQ = TRUE;
    SAME_STATE;
    }

45  for(WAIT_ENABLE_SWITCH_RSP_STATE;
        USER_ACCEPT_RM)
    {
    process ring map update;
50     if accepted ring map is different from old ring map {
        send ring map to all nodes in ring;
        NEXT_STATE(WAIT_RM_ACK_STATE);
    }
    SAME_STATE;
55  }

    for(WAIT_ENABLE_SWITCH_RSP_STATE;
        BLSR_TBL_RSP, NODE_ID_ACK,
        RM_ACK, ENABLE_SWITCH)
60  {
    STATE_ERROR;

```


}

005160 9000000000